

Comparisons of Job Characteristics

Focus Occupation: [Engineers, All Other \(17-2199\)](#)

Associated Occupation: [Civil Engineering Technicians \(17-3022\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 67

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Civil Engineering Technicians (17-3022)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	15.6	20.1	>> Current knowledge level is likely more than sufficient
Building and Construction	4.0	15.1	6.6	<< Extensive education and/or training may be required
Mathematics	9.2	15.0	17.1	> Current knowledge level is likely sufficient
Design	5.2	14.1	16.5	> Current knowledge level is likely sufficient
Public Safety and Security	6.9	10.6	7.9	<< Extensive education and/or training may be required
Geography	3.9	9.0	3.2	<< Extensive education and/or training may be required
Transportation	4.6	8.6	4.3	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Civil Engineering Technicians (17-3022)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Reading Comprehension	10.7	12.9	15.1	> Skill level is likely sufficient
Mathematics	6.2	8.7	12.8	>> Skill level is likely more than sufficient
Operations Analysis	5.0	7.9	10.8	>> Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97			
Focus Occupation: Engineers, All Other (17-2199) Associated Occupation: Civil Engineering Technicians (17-3022)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	12.8	14.8	>	Current ability level is likely sufficient
Near Vision	11.1	12.6	12.4	0	Current ability level may be sufficient
Oral Expression	12.4	12.2	14.2	>	Current ability level is likely sufficient
Deductive Reasoning	10.6	11.4	15.0	>>	Current ability level is likely more than sufficient
Visualization	7.5	11.4	11.7	0	Current ability level may be sufficient
Written Comprehension	11.0	11.4	15.1	>>	Current ability level is likely more than sufficient
Written Expression	9.8	11.4	13.2	>	Current ability level is likely sufficient
Problem Sensitivity	11.1	10.8	14.0	>>	Current ability level is likely more than sufficient
Mathematical Reasoning	6.3	10.3	13.4	>>	Current ability level is likely more than sufficient
Number Facility	6.3	9.2	11.6	>	Current ability level is likely sufficient
Memorization	5.6	6.9	7.3	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 71
Focus Occupation: Engineers, All Other (17-2199) Associated Occupation: Civil Engineering Technicians (17-3022)		
Tools and Technologies	Exclusivity	
Audio and visual equipment	4	
Chemical evaluation instruments and supplies	10	
Computer data input devices	2	
Computer printers	2	
Computers	1	
Content authoring and editing software	1	
Cutting and crimping and punching tools	3	
Electrochemical measuring instruments and accessories	9	
Fluid mechanics equipment	11	
Humidity and moisture measuring instruments	15	

Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory heating and drying equipment	13
Laboratory mixing and stirring and shaking equipment and supplies	19
Laboratory ovens and accessories	15
Length and thickness and distance measuring instruments	2
Mechanical instruments	14
Metals and metallurgy and structural materials testing instruments	15
Meteorological instruments	16
Network applications software	1
Sampling equipment	12
Soil measuring equipment	20
Temperature and heat measuring instruments	6
Transducers	23
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.